

**ST. MARYS FALLS CANAL, MICHIGAN**

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**STATISTICAL REPORT  
OF  
LAKE COMMERCE PASSING THROUGH  
ST. MARYS FALLS CANAL  
SAULT STE. MARIE, MICHIGAN**

**DURING  
2009 NAVIGATION SEASON**

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**PREPARED UNDER THE DIRECTION OF  
UNITED STATES ARMY ENGINEER DISTRICT, DETROIT  
SAULT STE. MARIE AREA OFFICE**



## **TRAFFIC STATEMENT**

### **St. Marys Falls Canal, Michigan**

The 2009 commercial navigation season through the United States locks began on 25 March 2009 and ended 297 days later on 15 January 2010. On 16 March 2009, USCGC MACKINAW passed through the Poe Lock for ice breaking operations. The first commercial vessel for the season was the M/V ALGOSAR on 25 March 2009 up bound for Thunder Bay, ON. The last commercial vessel M/V ROGER BLOUGH passed down bound through the Poe Lock on 15 January 2010.

Delays are defined as elapsed time a vessel spends waiting to proceed with a lockage. Nine vessels were delayed by ice for a total of 2 hours and 32 minutes. Lock and Hardware malfunctions accounted for seven boats being delayed 6 hours and 32 minutes. Delays caused by interference by other vessels totaled 3 hours and 38 minutes. Vessel equipment malfunction accounted for 1 hour and 6 minutes of delays. Vessels detained by the U.S. Army Corps of Engineers or the USCG accounted for 34 minutes of delays. All other delays amounted to 3 hours and 42 minutes.

The largest cargo recorded for a single passage in the 2009 season was 68,680 net tons of Iron Ore by the M/V INDIANA HARBOR on 22 August 2009. The greatest total seasonal cargo transported by a single vessel was 2,560,384 net tons carried by the M/V INDIANA HARBOR. The smallest cargo for a single passage in 2009 was 1 net ton of Electrical Machinery by the TUG KELLI ANNE on 23 September 2009.

Cargo flow was the greatest in the month of October with 6,673,940 net tons passing through the locks. A total of 3,098 cargo carriers passed through the locks during the 2009 season, a decrease of 1,147 from the 2008 season. An annual total of 53,351,256 net tons of freight were recorded. This was 25,123,601 net tons below the 2008 total. Total vessel passages decreased from 7,558 in 2008 to 7,354 in 2009. Freight decreased by 32.01 percent and total cargo carrier passages decreased by 27.02 percent.

Comparing the movement of cargo in and out of Lake Superior, 23 commodities experienced decreases from 2009 ranging from 9.39% for Barley & Rye to 100% for I&S Pipe & Tube, Manganese Ore, Paper & Paperboard, Pulp & Waste Paper, Residual Fuel Oil, and Sodium Hydroxide. Commodities increasing in volume ranged from Salt at 0.34% to Grain Mill Products at 345.32%. The greatest single gain in cargo tonnage was 836,888 net tons of Wheat while the most significant decrease was 19,874,776 net tons of Iron Ore.

The canal has not seen cargo movement this low since the 1938 navigation season when 40,042,739 net tons of cargo passed thru. The last time the canal saw a decline in cargo tonnage of this magnitude was between the 1981 (96,237,836 net tons) and 1982 (66,461,686 net tons) navigation seasons when the decline totaled 29,776,150 net tons. The largest yearly decline ever was between the 1937 (87,633,699 net tons) and 1938 (40,042,739 net tons) navigation seasons when the decline totaled 47,590,960 net tons.

The periods of operation and total passages of all craft for each lock during the 2009 season are as follows:

<b>Lock</b>	<b>Traffic Opening Day</b>	<b>Closing Day</b>	<b>Number of Days in operation</b>	<b>Total Passages</b>
MacArthur	3 May 09	13 December 08	225	4,157
Poe	25 March 09	15 January 10	297	3,195
Davis *	N/A	N/A	1	2
Sabin **	N/A	N/A	0	0

\* Used occasionally

\*\* Caretaker Status

The following tabulation shows the number of cargo vessel passages recorded for the past ten navigational seasons through the American canal:

<b>Year</b>	<b>No. Passages</b>	<b>Year</b>	<b>No. Passages</b>
2000	4,845	2005	4,312
2001	4,309	2006	4,412
2002	4,543	2007	4,730
2003	4,205	2008	4,245
2004	4,189	2009	3,098

The following is a comparative monthly statement of freight tonnage moved through the St. Marys Falls Canal for the past two seasons:

<b>Month</b>	<b>2008 Net Tons</b>	<b>2009 Net Tons</b>	<b>Increase/Decrease</b>
March	1,225,375	78,900	-1,146,475
April	7,466,794	4,268,711	-3,198,083
May	9,564,841	5,624,019	-3,940,822
June	9,677,871	5,731,472	-3,946,399
July	9,443,469	5,885,323	-3,558,146
August	9,701,406	5,989,718	-3,711,688
September	8,669,054	5,579,574	-3,089,480
October	8,979,462	6,673,940	-2,305,522
November	7,349,219	6,495,265	-853,954
December	5,421,266	5,465,138	43,872
January	976,100	1,559,196	583,096
Total	78,474,857	53,351,256	-25,123,601

Statistical Report of Lake Commerce  
 Passing Through the Canal at Sault Ste. Marie, Michigan  
 For the Season of 2009

Item	Westbound	Eastbound	Total Net Tons	Previous 3 Seasons Average
Asphalt, Tar & Pitch	876	46,105	46,981	54,449
Barley & Rye	0	119,848	119,848	91,919
Cement & Concrete	303,862	5,779	309,641	436,503
Clay & Refrac. Mat.	0	70,732	70,732	163,987
Coal	1,566,752	15,772,301	17,339,053	20,824,575
Coal Coke	101,418	92,853	194,271	391,228
Corn	0	0	0	5,301
Distillate Fuel Oil	89,000	4,686	93,686	159,415
Dredged Material	70,967	0	70,967	29,811
Electrical Machinery	5,080	0	5,080	13,192
Flaxseed	0	229,411	229,411	522,231
Gasoline	112,783	5,161	117,944	85,851
Grain Mill Products	0	38,614	38,614	117,567
I&S Bars & Shapes	4,648	8,503	13,151	94,065
I&S Pipe & Tube	0	0	0	62,302
I&S Plates & Sheets	83	324,139	324,222	392,459
I&S Primary Forms	0	0	0	6,253
Iron & Steel Scrap	28,679	19,552	48,231	101,360
Iron Ore	51,311	22,126,465	22,177,776	42,943,367
Limestone	3,084,048	0	3,084,048	4,292,508
Lumber	0	0	0	2,420
Machinery (Not Elec)	12,561	255	12,816	33,371
Manganese Ore	0	0	0	18,779
Manufac. Prod. NEC	0	45	45	0
Multi-commodities in Containers	0	0	0	832
Oats	0	251,058	251,058	239,442
Oilseeds NEC	0	909,229	909,229	921,540
Paper & Paperboard	0	0	0	11,255
Petroleum Coke	8,571	8,600	17,171	10,720
Pig Iron	0	0	0	2,860
Potassic Fert.	0	186,077	186,077	469,056
Primary I&S NEC	100	0	100	367
Pulp & Waste Paper	0	0	0	10,722
Residual Fuel Oil	0	0	0	13,960
Salt	564,800	0	564,800	553,715
Sand & Gravel	0	0	0	10,324
Slag	20,154	611,638	631,792	571,421
Sodium Hydroxide	0	0	0	16,304
Soybeans	0	31,742	31,742	102,387
Vegetables & Prod.	0	248,430	248,430	435,116
Vehicles & Parts	100	0	100	0
Wheat	0	6,214,240	6,214,240	6,612,255
Wood in the Rough	0	0	0	667
Vessel Passages	3,786	3,568	7,354	8,054
Lockages	3,015	2,823	5,838	6,682
Total Passengers	56,754	41,233	97,987	86,293
Recreational Passengers	1,005	1,011	2,016	1,335
Freight (Net Tons)	6,025,793	47,325,463	53,351,256	80,825,858

Comparative Statistical Statement of Lake Commerce  
Passing Through the Canal at Sault Ste. Marie, Michigan  
For the Seasons of 2008 and 2009

Item	2008 Season	2009 Season	Increase / Decrease	Percent Increase Decrease
Vessel Passages	7,558	7,354	-204	-2.70%
Cargo Carriers	4,245	3,098	-1,147	-27.02%
Non-Cargo Carriers	3,313	4,256	943	28.46%
Lockages	6,335	5,838	-497	-7.85%
Total Passengers	74,884	97,987	23,103	30.85%
Recreational Passengers	817	2,016	1,199	146.76%
Asphalt, Tar & Pitch	54,314	46,981	-7,333	-13.50%
Barley & Rye	132,271	119,848	-12,423	-9.39%
Cement & Concrete	403,734	309,641	-94,093	-23.31%
Clay & Refrac. Mat.	133,904	70,732	-63,172	-47.18%
Coal	21,252,106	17,339,053	-3,913,053	-18.41%
Coal Coke	431,433	194,271	-237,162	-54.97%
Distillate Fuel Oil	153,122	93,686	-59,436	-38.82%
Dredged Material	0	70,967	70,967	100.00%
Electrical Machinery	14,815	5,080	-9,735	-65.71%
Flaxseed	511,865	229,411	-282,454	-55.18%
Gasoline	88,833	117,944	29,111	32.77%
Grain Mill Products	8,671	38,614	29,943	345.32%
I&S Bars & Shapes	64,152	13,151	-51,001	-79.50%
I&S Pipe & Tube	88,310	0	-88,310	-100.00%
I&S Plates & Sheets	407,574	324,222	-83,352	-20.45%
Iron & Steel Scrap	57,134	48,231	-8,903	-15.58%
Iron Ore	42,052,552	22,177,776	-19,874,776	-47.26%
Limestone	4,354,205	3,084,048	-1,270,157	-29.17%
Machinery (Not Elec)	50,008	12,816	-37,192	-74.37%
Manganese Ore	27,725	0	-27,725	-100.00%
Manufac. Prod. NEC	0	45	45	100.00%
Oats	237,540	251,058	13,518	5.69%
Oilseeds NEC	903,257	909,229	5,972	0.66%
Paper & Paperboard	18,693	0	-18,693	-100.00%
Petroleum Coke	0	17,171	17,171	100.00%
Potassic Fert.	319,999	186,077	-133,922	-41.85%
Primary I&S NEC	0	100	100	100.00%
Pulp & Waste Paper	14,860	0	-14,860	-100.00%
Residual Fuel Oil	7,237	0	-7,237	-100.00%
Salt	562,869	564,800	1,931	0.34%
Slag	413,607	631,792	218,185	52.75%
Sodium Hydroxide	16,497	0	-16,497	-100.00%
Soybeans	15,251	31,742	16,491	108.13%
Vegetables & Prod.	300,967	248,430	-52,537	-17.46%
Vehicles & Parts	0	100	100	100.00%
Wheat	5,377,352	6,214,240	836,888	15.56%
Total Freight	78,474,857	53,351,256	-25,123,601	-32.01%

The St. Marys Falls Canal was opened 25 March 2009 and closed 15 January 2010. (A season of 297 days)

Statistical Table of Freight Tonnage  
Passing Through the Canal by Lock and Direction at Sault Ste. Marie, Michigan  
for the Season of 2009

Month	MacArthur	Poe	Davis	West Bound	East Bound	Total
March	0	78,900	0	21,256	57,644	78,900
April	0	4,268,711	0	300,091	3,968,620	4,268,711
May	1,116,032	4,507,987	0	376,497	5,247,522	5,624,019
June	1,362,687	4,368,785	0	541,638	5,189,834	5,731,472
July	1,398,567	4,486,756	0	810,612	5,074,711	5,885,323
August	1,438,725	4,550,993	0	785,011	5,204,707	5,989,718
September	1,283,590	4,295,984	0	933,594	4,645,980	5,579,574
October	1,473,357	5,200,583	0	1,055,798	5,618,142	6,673,940
November	1,438,001	5,057,264	0	740,925	5,754,340	6,495,265
December	560,852	4,904,286	0	434,151	5,030,987	5,465,138
January	0	1,559,196	0	73,298	1,485,898	1,559,196
Totals	10,071,811	43,279,445	0	6,072,871	47,278,385	53,351,256

Statistical Table of Freight Tonnage and Passages  
Passing Through the Canal by Lock and Direction at Sault Ste. Marie, Michigan  
for the Season of 2009

Net Tonnage					Passages			
Vessel Flag	MacArthur Lock	Poe Lock	Davis Lock	Total Net Tons	MacArthur Lock	Poe Lock	Davis Lock	Total Passages
American	1,716,518	34,960,533	0	36,677,051	2,367	2,011	2	4,380
Canadian	7,775,782	7,043,080	0	14,818,862	944	737	0	1,681
Foreign	579,511	1,275,832	0	1,855,343	120	124	0	244
Government	0	0	0	0	726	323	0	1,049
All Other	0	0	0	0	0	0	0	0
Totals	10,071,811	43,279,445	0	53,351,256	4,157	3,195	2	7,354

Table of Maximum Records of Freight Tonnage for One Day  
Passing Through the Canal by Lock at Sault Ste. Marie, Michigan  
for the Season of 2009

Lock	Day	Tonnage	Cargo Passages	Average Lockage Time	
				Hour	Minute
MacArthur	10/8/2009	164,046	7	0	54
Poe	10/14/2009	381,599	11	1	4
All Locks	7/8/2009	420,043	16	0	57

Freight between Lake Superior and each of the other Lakes and Overseas  
Passing Through the Canal at Sault Ste. Marie, Michigan  
for the Season of 2009

Vessel Flag	PORTS		EASTBOUND FROM LAKE SUPERIOR								
	From	To	Lake Michigan	Lake Huron	Lake Erie	Lake Ontario	St. Marys River	St. Clair / Detroit Rivers	St. Lawrence River and Coastwise	Foreign	Total
American	American	American	11,751,363	281,222	6,300,361	0	0	12,960,412	0	0	31,293,358
	American	Canadian	0	0	920,440	206,680	0	0	0	0	1,127,120
	Canadian	American	90,949	3,718	0	0	0	0	0	0	94,667
Canadian	Canadian	Canadian	0	240,433	133,843	783,251	13,525	538,222	4,308,521	0	6,017,795
	Canadian	American	250,674	194,820	372,551	0	0	551,591	0	0	1,369,636
	American	Canadian	0	19,223	1,587,956	2,300,221	0	28,756	1,649,028	0	5,585,184
Other Foreign	Canadian	Canadian	0	0	11,197	0	0	0	434,429	0	445,626
	Canadian	Overseas	0	0	0	0	0	0	0	436,979	436,979
	American	Canadian	0	0	0	0	0	0	481,399	0	481,399
	American	Overseas	0	0	0	0	0	0	0	473,699	473,699
Total Eastbound			12,092,986	739,416	9,326,348	3,290,152	13,525	14,078,981	6,873,377	910,678	47,325,463

Vessel Flag	PORTS		WESTBOUND TO LAKE SUPERIOR								
	From	To	Lake Michigan	Lake Huron	Lake Erie	Lake Ontario	St. Marys River	St. Clair / Detroit Rivers	St. Lawrence River and Coastwise	Foreign	Total
American	American	American	706,298	2,321,887	282,998	0	70,120	51,311	0	0	3,432,614
	American	Canadian	28,956	8,233	542,242	0	896	35,038	0	0	615,365
	Canadian	American	0	113,927	0	0	0	0	0	0	113,927
Canadian	Canadian	Canadian	0	300,164	7,176	35,234	100	83,011	0	0	425,685
	Canadian	American	0	280,681	3,370	124,573	0	31,840	0	0	440,464
	American	Canadian	959	366,040	564,412	0	0	48,687	0	0	980,098
Other Foreign	Canadian	Canadian	0	0	0	0	0	0	4,875	0	4,875
	Canadian	American	0	0	0	0	0	0	2,719	0	2,719
	American	Canadian	2,533	0	0	0	0	0	0	0	2,533
	Overseas	Canadian	0	0	0	0	0	0	0	7,513	7,513
Total Westbound			738,746	3,390,932	1,400,198	159,807	71,116	249,887	7,594	7,513	6,025,793
Total Eastbound/Westbound			12,831,732	4,130,348	10,726,546	3,449,959	84,641	14,328,868	6,880,971	918,191	53,351,256

Comparative Statement of Deepest Monthly Drafts  
Passing Through the Canal at Sault Ste. Marie, Michigan  
for the Seasons of 2008 and 2009

Month	2008 Season			2009 Season			Increase / Decrease	
	Vessel Name	Draft		Vessel Name	Draft		Feet	Inches
		Feet	Inches		Feet	Inches		
March	FRONTENAC	26	0	JOYCE VANEKEVORT	25	7		-5
April	FEDERAL RHINE	26	7	JOYCE VANEKEVORT	27	3		8
May	INDIANA HARBOR	26	10	AMERICAN MARINER	27	6		8
June	MESABI MINER	27	5	AMERICAN MARINER	28	0		7
July	MESABI MINER	27	7	PAUL R TREGURTHA	27	10		3
August	AMERICAN MARINER	27	8	INDIANA HARBOR	27	11		3
September	STEWART J CORT	27	7	JOYCE VANEKEVORT	27	10		3
October	JAMES R BARKER	27	4	PAUL R TREGURTHA	27	7		3
November	ROGER BLOUGH	26	9	JOYCE VANEKEVORT	27	6		9
December	OLYMPIC MERIT	26	7	JOYCE VANEKEVORT	27	5		10
January	JOHN B AIRD	26	6	CHARLES M BEEGHLY	27	6	1	0

Maximum All-Time Freight Records  
for Each Month of Navigation

Month	Year	Number of Lockages	Number of Passages	Total Net Tons
February	1978	101	102	968,280
March	2006	109	122	1,744,715
April	1953	1,990	2,533	12,323,048
May	1953	2,524	3,378	18,071,240
June	1953	2,059	2,812	18,317,886
July	1953	2,938	4,199	18,660,360
August	1953	2,980	4,167	19,106,798
September	1952	2,768	3,455	17,537,072
October	1943	2,520	3,435	16,502,946
November	1952	2,296	2,789	13,604,714
December	1994	640	707	9,974,983
January	2004	252	253	3,827,480